DSP pool **222** comprises DSPs **209–211** that are under control of main CPU **201** to perform the necessary coding and conversion tasks.

Circuit switch interface **223** comprises elements **212–218**. Controller **212** provides overall control of circuit switch interface **223**. Bus interface **213** interfaces control bus **214** and TDM bus **216** with local bus **225**. Control bus **214** is utilized to communicate control information between line circuits **217** and trunk circuits **218** and controller **212**. TDM bus **216** is utilized to communicate digitally encoded speech or data samples with lines circuits **217** and trunk circuits **218**. Line circuits **217** are utilized to provide termination for telecommunication terminals; whereas, trunk circuits **218** terminate trunks with the public telephone switching network **101**.

Software module control **226** provides the overall control of remote switch **102** in response to stimuli received from units that are part of remote switch **102** and from control messages received from main Enterprise communication system **109**. Consider now the operation previously discussed of connecting a user of telephone set **103** connected to central office **101** to voice mail system **113** via remote switch **102**, WAN **106**, and Enterprise communication system **109**. When the user of telephone set **103** dials the telephone number associated with agent **116**, control module **226** terminates the control portion of this call on agent module **116** utilizing techniques well known to those skilled in the art. Agent **116** then transmits the necessary control messages to control **226** to establish a telephone call to voice messaging system **113**. Control **226** performs this operation by interactions with Enterprise communication system **109**. After the initial call set up, agent **116** then transmits a message to initiate a call transfer to control **226**. Control **226** interacts with Enterprise communication system **109** to accomplish the call transfer. Enterprise communication system **109** in response to messages from control **226** transmits messages to control **226** that causes control **226** to establish a connection between trunk **107** and voice mail system **113** with telephone set **103**. The interconnection of voice mail system **113** and telephone set **103** is accomplished by control **226** sending the necessary control messages to controller **212** which controls TDM bus **216**. In response to these control signals, a path is set up via TDM bus **216**, bus interface **213**, TSI **206**, MPU bus **204**, WAN interface **203** to WAN **106** and then to voice mail system **113** via Enterprise communication system **109**. The operation of these components is described in detail in the previously incorporated patent application.

Consider now in greater detail the operation of the user of telephone set **103** placing a call to telephone set **114** connected to Enterprise communication system **109** or to telephone set **112** interconnected to remote switch **108**. The call is received by remote switch **102** from central office **101** via trunk circuits **218**. Control **226** is responsive to the dialed telephone number of this call to interconnect the call to agent **117**. Agent **117** then instructs control **226** to transmit a call set up message to Enterprise communication system **109** via MPU bus **204**, WAN interface **203**, and WAN **106**. In response to this call set up message, Enterprise communication system **109** transmits back a dial tone or in the case of ISDN signaling, the acknowledgment of the call set up message (call proceed message). In response, agent **113** instructs control **226** to interconnect via TDM bus **216** and relay any ISDN messages to trunk circuits **218** for subsequent relaying to central office **101** and telephone set **103**. The paths including a talk path and a signaling path is then established from telephone set **103** via central office **101**, trunk circuits **218**, and TDM bus **216**, bus interface **213**, TSI **206**, MPU bus **204**, WAN interface **203**, and WAN **106** to Enterprise communication system **109**. Enterprise communication system **109** then proceeds with the set up of the call receiving control signals from telephone set **103**.

After being started in block **301**, decision block **302** determines if there is an incoming call. If the answer is no, block **312** performs normal processing before returning control back to decision block **302**. If the answer in decision block **302** is yes, control is transferred decision block **303** which determines if the incoming call is for agent **116**. If the answer is yes in decision block **303**, block **304** places the incoming call on hold. Block **306** then sets up a call to the voice messaging system. Finally, block **307** transfers the incoming call to the voice messaging system before returning control back to decision block **302**.

Returning to decision block **303**, if the answer in decision block **303** is no, decision block **308** determines if the call is for agent **117**. If the answer is no, block **313** performs normal processing before returning control back to decision block **302**. If the answer in decision block **308** is yes, block **309** sets up a call path to the central switch which in the previous example had been Enterprise communication system **109**. After the call path has been set up in block **309**, block **311** redirects the incoming call to the call path before returning control back to decision block **302**.

Of course, various changes and modifications to the illustrative embodiment described above will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the invention and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the following claims except in so far as limited by the prior art.

What is claimed is:

1. A method for controlling telecommunication calls, comprising the steps of:

receiving a telecommunication call via a first call path from a telecommunication unit for a software agent located on a first switching system;

establishing a second call path from the software agent to a second switching system via a switching network in response to the telecommunication call;

interconnecting the received first call path and the second call path upon the second call path being established from the second switching system; and

transmitting a call proceed message on the first call path by the second switching system whereby the telecommunication unit is receiving the call proceed message from the second switching system via the first switching system and switching network.

2. The method of claim **1** wherein the step of interconnecting comprises the step of connecting the first call path and second call path together in a network within the first switching system.

3. The method of claim **2** wherein the step of connecting is requested by the software agent.

4. The method of claim **3** wherein the step of establishing comprises the step of requesting the second call path by the software agent.

5. The method of claim **2** wherein the step of connecting comprises the step of requesting an operation of the network by the software agent.

6. A system for continuing telecommunication calls between a remote switching system and a main switching system, comprising: